

Cooling Assembly Check

On Older Cryoscopes

1/ Press TEST on the keypad, Select test item will be displayed.

2/ Scroll right until A/D Test.

3/ Place an empty sample tube in the cooling assembly then press START.

4/ The head will go down and the display will change to give 2 separate options. The left hand option is controlled by the left hand scroll button, this will set the target temperature for the cooling assembly. Press this until -8 is displayed, the fan will increase in speed and cooling will take place.

5/ The right hand scroll button controls the right hand option of the display, press this until for example "Blk 1.5 deg" is displayed. As cooling takes place the right hand display will show the actual temperature of the cooling assembly. After a short time, 2-3 minutes, this should settle at the target temperature set previously.

On Later Cryoscopes

1/ Press TEST on the keypad, Select test item will be displayed.

2/ Scroll right until A/D Test.

3/ Place an empty sample tube in the cooling assembly then press START.

4/ Press the left hand scroll button, the head will now go down, the fan will increase and the cooling effect will start. Continue pressing this button until the target temperature of -7 is indicated.

5/ The right hand scroll button controls the right hand option of the display, press this until for example "Blk 1.5 deg" is displayed. As cooling takes place the right hand display will show the actual temperature of the cooling assembly. After a short time, 2-3 minutes, this should settle at the target temperature set previously.

Fault

Failure to reach the target temperature indicates a fault.

Scroll to the right until "duty cycle" is displayed, this gives an indication of the amount of work being done by the cooling assembly to reach or maintain the target temperature. Typically this is less than 75%. A very high duty cycle indicates a possible problem.

On a new instrument the duty cycle would be expected to be 55-60%.